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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,068	06/20/2003	Thomas Rammhofer	03191/000M902-US0	8894
7278	7590	08/11/2005	EXAMINER	
DARBY & DARBY P.C. P. O. BOX 5257 NEW YORK, NY 10150-5257			LESLIE, MICHAEL S	
			ART UNIT	PAPER NUMBER
			3745	

DATE MAILED: 08/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

Office Action Summary

Application No.

10/601,068

Applicant(s)

RAMMHOFFER, THOMAS

Examiner

Michael Leslie

Art Unit

3745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☒ Claim(s) 8 and 18 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/17/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Art Unit: 3745

DETAILED ACTION

Claim Objections

Claim 8 is objected to because of the following informalities: Line 2, "concomprises" should be --comprises--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 12-14, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Schonlau et al (5121686).

Schinlau et al discloses a hydraulic system having a master cylinder with a housing (1), a piston (2) and pressure compartment (20) inside the housing, a piston rod (31) connected to the piston, a sealing means arranged between the housing and piston, a slave cylinder (not shown), and a hydraulic fluid conduit (~19), wherein the piston comprises a duroplastic polymer material. The duroplastic polymer material is phenolic resin and is reinforced with glass fibers. The piston includes at least one snifting groove (17, 18) on a front face of the piston, and a bore cavity containing a ball joint (~32) connected to the piston rod.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being obvious over Schonlau et al in view of Winkelmann et al (6526868).

The applied reference (6526868) has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Art Unit: 3745

Schonlau et al discloses a hydraulic system as described above with respect to claim 1, but does not teach that the piston includes at least one of polytetrafluoroethylene, molybdenum disulfide, and graphite, or that the housing includes polytetrafluoroethylene.

Winkelmann et al discloses a hydraulic system having a master cylinder (201) having a piston (203) made of thermosetting plastic including polytetrafluoroethylene.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Schonlau et al by having the piston and housing include polytetrafluoroethylene as taught by Winkelmann et al for the purpose of enhancing smooth sliding between the piston and housing to reduce vibration.

Claims 5-7 are rejected under 35 U.S.C. 103(a) as being obvious over Schonlau et al in view of Shimizu et al (5767198).

Schonlau et al discloses a hydraulic system as described above with respect to claims 4 and 1, respectively, but does not teach a weight percentage for the glass fibers in the polymer, or that the polymer is reinforced with glass beads in having a weight percentage of 1% to 50%.

Shimizu et al teaches a thermoplastic resin composition for sliding parts having either of glass fibers and glass beads as reinforcement having a weight percentage of 1% to 30% (Column 13, Lines 22-40).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Schonlau et al. by having the glass fiber content in the range of 1% to 50% by weight, or to use glass beads as the reinforcement with a content in

Art Unit: 3745

the range of 1% to 50% by weight as taught by Shimizu et al for the purpose of enhancing the properties of the material to fit the intended application.

Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schonlau et al in view of Engineering Expedient.

Schonlau et al discloses a hydraulic system as described above with respect to claim 1, but does not teach specific characteristics of surface finish for the piston including average roughness, maximum-depth roughness, or bearing ratio.

It is common practice in the art of mechanical design to optimize parameters according to preset standards in order to refine the products operation. In the instant case, the optimization of the surface finish parameters for optimal sliding conditions between the piston and housing guided by the standards set forth in DIN 4876, part 1. It would have been obvious to one having ordinary skill in the mechanical design art to further modify Schonlau et al, as an engineering expedient for the purpose of optimizing the surface finish parameters to obtain optimal sliding conditions between the piston and housing.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schonlau et al in view of Design Choice.

Schonlau et al discloses a hydraulic system as described above with respect to claim 12, but does not teach a depth for the snifting grooves.

Since applicant has not disclosed that having snifting grooves with a depth in the range of 0.5 mm to 1.5 mm solves any stated problem or is for any particular purpose above the fact that

Art Unit: 3745

the optimized range fits the particular application and it appears that the snifting grooves of Schonlau et al would perform equally well with a range of depths as claimed by applicant, it would have been an obvious matter of design choice to modify the snifting grooves of Schonlau et al by utilizing the range of depths as claimed for the purpose of venting the pressure chamber.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schonlau et al in view of Williamson (5715681).

Schonlau et al discloses a hydraulic system as described above with respect to claim 1, but does not teach that the piston rod includes a first end stop plate.

Williamson teaches a master cylinder having a piston (3) and piston rod (7) connected to the piston, wherein the piston rod includes a first end stop plate (not numbered) for limiting movement in the pull direction.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Schonlau et al by including a first end stop plate on the piston rod as taught by Williamson for the purpose of limiting movement in the pull direction.

Allowable Subject Matter

Claim 18 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 3745

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. 6769254 and 4785721 each disclose hydraulic pressure systems having master cylinders.

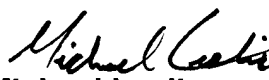
Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Leslie whose telephone number is (571) 272-4819. The examiner can normally be reached on M-F 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look can be reached on (571) 272-4820. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ML
August 4, 2005


Michael Leslie
Patent Examiner
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8/5/05